

OVERCAP FOR A CONTAINER

The invention relates to improved overcaps for use in conjunction with a container of the type having an end closure in the form of a flexible end panel secured, sealed or otherwise attached to the container along a peripheral portion of the end panel.

Background of the Invention

It is known in the prior art to provide overcaps for contains of the type including food and/or beverage products, and the like, primarily for the purpose of maintaining cleanliness of the container end panel prior to opening thereof and such overcaps may also be used for re-closing an opened container for precluding contamination and/or spillage and the like.

Summary of the Invention

The present invention relates to an overcap for a container of the type including a closure having a flexible end panel. The overcap is snapped onto, or twisted onto, or threaded onto the associated container for lying closely adjacent to the flexible end panel for reducing the possibility of the end panel becoming separated from the container incident to retorting or impact loading, such as by mishandling or dropping of the container. The underside of the overcap may be provided with one or more depending annular ring members or depending leg members formed integral with the overcap and to be placed closely adjacent to or in contact with the flexible end panel of the container.

Brief Description of the Drawing

Fig. 1 is a fragmentary, sectional view showing a container having a double seamed ring member secured thereto along an upper rim thereof and including a flexible end panel

secured to a flange portion of the ring member, and a flexible, thermoplastic overcap for protecting the container and its end panel.

5 Fig. 2 is a fragmentary, sectional view, similar to Fig. 1 showing the wall of a container formed of thermoplastic material in the conventional shape known as a tub.

10 Fig. 3 is a fragmentary, sectional view, similar to Fig. 1 showing a further embodiment of overcap including a horizontal upper surface and a plurality of depending, annular rings or leg members disposed closely adjacent to the flexible end panel of the container closure.

15 Fig. 4 is a fragmentary, sectional view, similar to Figs. 1 and 3, showing a further embodiment wherein the overcap has a horizontal upper surface and includes a singular annular ring member for engaging or lying closely adjacent to the flexible end panel.

20 Fig. 5 is a fragmentary, sectional view, of a further embodiment wherein a central portion of the overcap is depressed to lie in contact with, or closely adjacent to, the flexible end panel of a container.

25 Fig. 6 is a further embodiment of the invention wherein the skirt portion of the overcap is provided with a detent or protrusion for cooperating with a groove or threaded portion located within a flange at the upper margin of the container wall.

Detailed Description of the Preferred Embodiments

Referring to Figure 1, fragmentary portion of an annular container body, generally indicated by the numeral 10 includes

a container wall 12 which is provided at its upper rim thereof with an annular ring member 14 double seamed to the container wall 12 and including an inwardly directed annular flange portion 16 for sealing engagement with an end closure comprised of a flexible end panel 18. A flexible, thermoplastic overcap, generally indicated by the numeral 30, is pressed or snapped over the container seam such that a depending skirt portion 32 and held in place by an annular, or interrupted, detent 34. Overcap 30 includes a central panel portion 36 for completely covering the upper surface of container 10. An important part of the invention is comprised of an annular ring or leg member 38 integrally molded with and depending from central panel portion 36 to lie closely adjacent to, or in contact with, end panel 18 of container 10. When assembled as in Figure 1, overcap 30 not only protects the container from debris and other contamination, but has the desirable effect that ring member 38 precludes excess upward movement of end panel 18 either during a retort operation or impact loading caused by excess internal pressure resulting from mishandling and/or droppage.

Figure 2 shows a similar embodiment wherein an overcap, generally indicated by the numeral 40, includes a depending skirt portion 42 having a detent 44 securing the overcap 40 upon a container wall 50 which includes an outwardly directed flange portion 52 having a flexible end panel 54 adhesively or heat sealed thereto. Overcap 40 is provided with an integrally molded, downwardly depending, annular ring or leg member 46 for engaging with or lying closely adjacent to the flexible end panel 54 for minimizing upward flexure thereof.

Figure 3 illustrates a further embodiment of the invention wherein container 10 is protected by an overcap 60, the overcap 60 including a first annular ring member 64 integrally formed with overcap 60 and depending downwardly to

engage end panel 18 in the sealing area where the end panel 18 is affixed to flange portion 16. A second annular ring member, or intermittent leg member 66 is provided for lying closely adjacent to, or in contact with a central portion of end panel 18 for minimizing upward movement of the flexible end panel 18, thereby minimizing or precluding peeling of the end panel 18 from the flange portion 16.

Figure 4 is a further embodiment of the invention, similar to Figure 1 and/or Figure 3, wherein an overcap 70 is provided with a depending skirt portion 72 for holding the overcap upon the container 10 and includes a horizontal, flat surface 74 for ease in stacking a plurality of containers. A depending, annular ring or leg member 76 is integrally molded with overcap 70 and depends closely adjacent to or in contact with container end panel 18 for minimizing upward movement thereof.

Figure 5 illustrates a further embodiment of the invention wherein thermoplastic, flexible overcap 80 includes a depending skirt portion 82 for securing the overcap 80 upon container 10. Overcap 80 is provided with a central, recessed panel portion 84 disposed closely adjacent to, or in contact with, end panel 18, thereby providing increased protection against upward movement of flexible end panel 18.

Figure 6 illustrates a further embodiment of the invention wherein a plastic tub, generally indicated by the numeral 90, includes an annular container wall 92 having an enlarged or thickened rim portion 94 at the upper rim thereof and has formed therein a helical groove or threaded portion 96. An overcap 140 has a depending skirt portion 142 which includes a detent 144 disposed within the helical groove or threaded portion 96 thereby providing an adjustable attachment wherein overcap 140 can be tightened upon or screwed down upon

container 90 thereby allowing an annular ring or leg member 146 to engage against flexible end panel 98 for minimizing upward movement thereof.

5 In view of the foregoing, it will be seen that several embodiments have been disclosed for overcaps for containers, but it should be understood that the foregoing descriptions are by way of illustration, and the invention is not necessarily limited thereto. Modifications and variations will be apparent from the disclosure and may be resorted to
10 without departing from the spirit of the invention as those of skill in the art will readily understand. Accordingly, such variations and modifications are considered to be within the purview and scope of the invention as defined in the following claimed subject matter.